CLAIM AMENDMENTS

Please amend the claims as follows:

1-12. (Cancelled)

13. (Currently Amended) A method of production of stratified, terminally-differentiated mammalian urothelium in which urothelial cells, isolated from the mammalian body, are passaged through a first nutrient medium containing ~~components of~~ serum and then redispersed before being added to a second medium containing ~~components of~~ serum to form said urothelium.

14. (Previously Presented) The method of claim 13 wherein the mammalian urothelium is human urothelium.

15. (Previously Presented) The method of claim 13 in which the serum is bovine serum.

16. (Previously Presented) The method of claim 15 in which the serum is adult bovine serum.

17. (Currently Amended) The method of claim 13 in which the concentration of the components of the serum as a proportion of the final volume of nutrient medium is between about 1% and about 30% related to the concentration of said components in whole serum.

18. (Currently Amended) The method of claim 13 in which the concentration of the components of the serum as a proportion of the final volume of nutrient medium is between about 3% and about 10% related to the concentration of said components in whole serum.

19. (Currently Amended) The method of claim 13 wherein the concentration of the components of the serum as a proportion of the final volume of nutrient medium is between about 4% and about 6% related to the concentration of said components in whole serum.

20. (Previously Presented) The method of claim 13 wherein the nutrient medium is, or is a derivative of, MCDB-153 medium.

21. (Previously Presented) The method of claim 13 wherein the nutrient medium is KSFM (Keratinocyte Serum Free Medium).

22. (Previously Presented) The method of claim 13 wherein the nutrient medium is supplemented by one or more of Epidermal Growth Factor (EGF); Bovine Pituitary Extract (BPE); or Cholera Toxin (CT).

23. (Previously Presented) Urothelium produced by the method of claim 13.

24. (Currently Amended) A method of production of stratified, differentiated mammalian urothelium, the method comprising:

disaggregating cells of ~~culturing mammalian urothelial cells into a first cell culture medium substantially devoid of serum to form~~ a primary culture of mammalian urothelial cells;

dispersing the urothelial cells of the primary culture into a second first differentiation cell culture medium that includes whole serum;

culturing the urothelial cells in the second first differentiation culture medium to form a secondary cell culture having aggregated urothelial cells;

dispersing and disaggregating the aggregated urothelial cells into a third second differentiation cell culture medium that includes whole serum; and

culturing the urothelial cells in the third culture medium so as to form stratified, terminally-differentiated mammalian urothelium.

25. (Previously Presented) A method as in claim 24, wherein the aggregated urothelial cells are at least partially confluent.

26. (Previously Presented) A method as in claim 24, wherein the aggregated urothelial cells approach confluency.

27. - 28. (Cancelled)

29. (Previously Presented) A method as in claim 24, wherein the serum is at a concentration between about 1% and about 30% of the medium.

30. (Previously Presented) A method as in claim 24, wherein the serum is at a concentration between about 4% and about 6% of the medium.

31. (Previously Presented) A method as in claim 24, wherein the first, second, and/or third cell culture medium is one of MCDB-153 medium, KSFM (Keratinocyte Serum Free Medium), or a medium derived thereof.

32. (Previously Presented) A method as in claim 24, wherein first, second, and/or third cell culture medium is supplemented by at least one of Epidermal Growth Factor (EGF), Bovine Pituitary Extract (BPE), or Cholera Toxin (CT).

33. (New) A method as in claim 24, wherein the culturing includes increasing the calcium concentration in the second differentiation cell culture medium.

34. (New) A method of production of stratified, differentiated mammalian urothelium, the method comprising:

disaggregating cells of a primary culture of mammalian urothelial cells;

dispersing the urothelial cells of the primary culture into a first differentiation low calcium cell culture medium that includes at least 5% whole serum;

culturing the urothelial cells in the first differentiation culture medium to form a secondary cell culture having aggregated urothelial cells;

dispersing and disaggregating the aggregated urothelial cells into a second differentiation low calcium cell culture medium that includes at least 5% whole serum; and

culturing the urothelial cells and increasing the calcium concentration of the third culture medium so as to form stratified, terminally-differentiated mammalian urothelium.